

Contents

CHAPTER 8 PERMIT PROCESS AND REGULATORY COORDINATION	8-1
8.1 INTERAGENCY COORDINATION	8-1
8.1.1 Local Governments.....	8-2
8.1.2 State.....	8-5
8.1.3 Federal	8-5
8.1.4 River Basin Commissions.....	8-6
8.2 INTRA-DEC.....	8-6
8.2.1 Well Permit Review Process	8-6
8.2.2 Other DEC Permits and Approvals.....	8-7
8.3 WELL PERMIT ISSUANCE	8-8
8.3.1 Use and Summary of Supplementary Permit Conditions for High-Volume Hydraulic Fracturing .	8-8
8.3.2 High-Volume Re-Fracturing.....	8-9
Table 8-1	8-10

Chapter 8 PERMIT PROCESS AND REGULATORY COORDINATION

8.1 Interagency Coordination

Table 8.1, together with Table 15.1 of the GEIS, shows the spectrum of government authorities that oversee various aspects of well drilling and hydraulic fracturing. The GEIS should be consulted for complete information on the overall role of each agency listed on Table 15.1. Review of existing regulatory jurisdictions and concerns addressed in this Supplement identified the following additional agencies that were not previously listed and have been added to Table 8.1:

- New York State Department of Health (NYSDOH)
- US & NYS Departments of Transportation (USDOT & NYSDOT)
- Office of Parks, Recreation and Historic Preservation (OPRHP)
- New York City Department of Environmental Protection (NYCDEP)
- Susquehanna and Delaware River Basin Commissions (RBCs)

Following is a discussion on specific, direct involvement of other agencies in the well permit process relative to high-volume hydraulic fracturing.

8.1.1 Local Governments

ECL §23-0303(2) provides that DEC's Oil, Gas and Solution Mining Law supersedes all local laws relating to the regulation of oil and gas development except for local government jurisdiction over local roads or the right to collect real property taxes. Likewise, ECL §23-1901(2) provides for supercedure of all other laws enacted by local governments or agencies concerning the imposition of a fee on activities regulated by Article 23.

8.1.1.1 SEQRA Participation

For the following actions which were found in 1992 to be significant or potentially significant under SEQRA, the process will continue to include all opportunities for public input normally provided under SEQRA:

- Issuance of a permit to drill in State Parklands.
- Issuance of a permit to drill within 2000 feet of a municipal water supply well.
- Issuance of a permit to drill that will result in disturbance of more than 2.5 acres in an Agricultural District.

Based on the recommendations in this Supplement, the following additional actions will also include all opportunities for public input normally provided under SEQRA:

- Issuance of a permit to drill when high-volume hydraulic fracturing is proposed shallower than 2,000 feet anywhere along the entire proposed length of the wellbore.
- Issuance of a permit to drill when high-volume hydraulic fracturing is proposed where the top of the target fracture zone at any point along the entire proposed length of the wellbore is less than 1,000 feet below the base of a known fresh water supply.
- Issuance of a permit to drill when high-volume hydraulic fracturing is proposed and the fluid disposal plan required by 6 NYCRR 554.1(c)(1) includes use of a centralized flowback water surface impoundment that has not been previously approved by the Department.
- Issuance of a permit to drill the first well when high-volume hydraulic fracturing is proposed on a well pad within 300 feet of a reservoir, reservoir stem or controlled lake.¹

¹ The terms "reservoir stem" and "controlled lake" as used here are only applicable in the New York City Watershed, as defined by NYC's Watershed rules and regulations. See Section 2.4.4.3.

- Issuance of a permit to drill the first well when high-volume hydraulic fracturing is proposed on well pad within 150 feet of a private water well, domestic-use spring, watercourse, perennial or intermittent stream, storm drain, lake or pond.²
- Issuance of a permit to drill when high-volume hydraulic fracturing is proposed and the source water involves a surface water withdrawal not previously approved by the Department that is not based on the Natural Flow Regime Method as described in Chapter 7.
- Issuance of a permit to drill any well subject to Article 23 whose location is determined by NYCDEP to be within 1,000 feet of subsurface water supply infrastructure.

8.1.1.2 NYCDEP

The Department will continue to notify NYCDEP of proposed drilling locations in counties with subsurface water supply infrastructure to enable NYCDEP to identify locations in proximity to infrastructure that might require site-specific SEQRA determinations. In addition, permits issued in the NYC Watershed will specify by permit condition that NYCDEP must be included in the operator's notification required by ECL §23-0305(13) prior to commencement of operations.

8.1.1.3 Notification to Town Supervisors

ECL §23-0305(13) requires that the permittee notify any affected local government and surface owner prior to commencing operations. Many local governments have requested notification earlier in the process, although it is not required by law or regulation. Information required to track well permit applications is updated daily on the Department's public website. Because of the high level of interest and the community character concerns discussed in Chapter 6, particularly road use, the Department will provide initial Town government notification upon receipt of the first application for high-volume hydraulic fracturing in any town. The letter will be addressed to the town supervisor as identified at

<http://www.orps.state.ny.us/cfapps/MuniPro/index.cfm>, and will include the following:

- 1) Brief description of permitting process;
- 2) Explanation that the letter is a notification for purposes of local coordination of jurisdictional issues (e.g., road use), not a SEQRA notice;

² The term "watercourse" as used here is only applicable in the New York City Watershed, as defined by NYC's Watershed rules and regulations. See Section 2.4.4.3.

- 3) Pertinent website links, including SGEIS, mapping applications and various lookup tables; and
- 4) Instructions for using the website to track well status and future applications. These instructions are also included in this Supplement as Appendix 26. The website is not restricted to government officials, but is public and can also be used by citizens with Internet access to track well status and permit applications. Division staff welcomes input from the surface owner and neighbors during the application review, and may impose specific permit conditions to address environmental concerns if appropriate.

8.1.1.4 Local Floodplain Development Permits

Local jurisdiction over development activities in 100-year floodplains is explained in Chapter 2. As set forth in Chapter 7 and the proposed Supplementary Permit Conditions for High-Volume Hydraulic Fracturing, the operator will be required to obtain any required local floodplain development permit prior to site disturbance.

8.1.1.5 Road Use Agreements

The Department strongly encourages operators to attain road use agreements with governing local authorities. The issuance of a permit to drill does not relieve the operator from responsibility to comply with any local requirements authorized by or enacted pursuant to the New York State Vehicle and Traffic Law. Though the Department does not have the authority to require, review or approve road use agreements or trucking plans, the proposed Supplementary Permit Conditions for High-Volume Hydraulic Fracturing require a road use agreement or trucking plan to be filed with the Department for informational purposes prior to site disturbance.

8.1.1.6 Local Planning Documents

The Department's exclusive authority to issue well permits supercedes local government authority relative to well siting. However, the EAF Addendum will require the applicant's affirmation of having reviewed local planning documents such as comprehensive, open space or agricultural plans. The Department strongly encourages operators to consult with local governments regarding any existing local plans, and – to the maximum extent practicable – site operations accordingly.

8.1.1.7 County Health Departments

As explained in Chapter 15 of the GEIS and Chapter 7 of this document, county health departments are the most appropriate entity to undertake initial investigation of water well complaints. Therefore, the Department proposes that county health departments receive copies of the required baseline and monitoring analyses of residential water wells in proximity to well pads where high-volume hydraulic fracturing occurs. Furthermore, the Department proposes that county health departments retain responsibility for initial response to most water well complaints, referring them to the Department when other causes have been ruled out. The exception to this is when a complaint is received while active operations are underway within a specified distance; in these cases, the Department will conduct a site inspection and will jointly perform the initial investigation along with the county health department.

8.1.2 State

Except for the Public Service Commission relative to its role regarding pipelines and associated facilities (which will continue; see Chapter 5), no State agencies other than DEC are listed in GEIS Table 15.1. The New York State Departments of Health (DOH) and Transportation (DOT), along with the Office of Parks, Recreation and Historic Preservation are listed in Table 8.1 and will be involved as follows:

- *DOH*: Potential future and ongoing involvement in review of new proposed hydraulic fracturing additives, NORM issues, and assistance to county health departments regarding water well investigations and complaints.
- *DOT*: Not directly involved in well permit reviews, but have regulations regarding intrastate transportation of hazardous chemicals found in hydraulic fracturing additives (see Chapter 5).
- *OPRHP*: In addition to continued review of well and access road locations in areas of potential historic and archeological significance, OPRHP will also review locations of related facilities such as surface impoundments and treatment plants.

8.1.3 Federal

The United States Department of Transportation is the only newly listed federal agency. As explained in Chapter 5, the US DOT regulates transportation of hazardous chemicals found in

fracturing additives and has also established standards for containers. Roles of the other federal agencies shown on Table 15.1 will not change.

8.1.4 River Basin Commissions

SRBC and DRBC are not directly involved in the well permitting process, and the Department will gather information related to proposed surface water withdrawals that are identified in well permit applications. However, the Department will continue to participate on each Commission to provide input and information regarding projects of mutual interest. DRBC has asserted jurisdiction to approve natural gas well siting and drilling in the Delaware River Basin; the Department will continue to seek cooperation and to avoid any unnecessary regulatory duplication.

8.2 Intra-DEC

8.2.1 Well Permit Review Process

The Division of Mineral Resources (DMN) will maintain its lead role in the review of Article 23 well permit applications, including review of the fluid disposal plan that is required by 6 NYCRR 554.1(c)(1). The Divisions of Air Resources (DAR); Fish, Wildlife and Marine Resources (DFWMR); Solid and Hazardous Materials (DSHM) and Water (DOW) will have advisory roles relative to various aspects of proposed centralized flowback water surface impoundments. DSHM will also have an advisory role regarding cuttings and pit liner disposal for wellbores drilled on mud, DFWMR will have an advisory role regarding invasive species control and DAR will have an advisory role with respect to applicability of various air quality regulations and effectiveness of proposed emission control measures.

8.2.1.2 Required Hydraulic Fracturing Additive Information

As set forth in Chapter 5, NYSDOH reviewed information on 260 unique chemicals present in 197 products proposed for hydraulic fracturing of shale formations in New York, categorized them into chemical classes, and did not identify any potential exposure situations that are qualitatively different from those addressed in the 1992 GEIS. The regulatory discussion in Chapter 5 concludes that adequate well design prevents contact between fracturing fluids and fresh ground water sources, and text in Chapter 6 along with Appendix 11 on subsurface fluid mobility explains why ground water contamination by migration of fracturing fluid is not a

reasonably foreseeable impact. Chapters 6 and 7 include discussion of how setbacks, inherent mitigating factors, and a myriad of regulatory controls protect surface waters. Chapter 7 also proposes a water well testing protocol using indicators that are independent of specific additive chemistry.

The only potential exposure pathway to fracturing additives identified by this Supplement is via air emissions from uncovered surface impoundments used to contain flowback water. Chemistry dictates the extent of required controls, including the distance within which ambient air thresholds are exceeded and public access must be restricted. Therefore, the Department proposes that full chemical disclosure be required with applications that propose the use of open surface impoundments. Products listed in Table 5.3 require no additional disclosure, but the application materials will have to specify their planned concentrations in the fracturing fluid.

The Department recognizes that flowback water chemistry may be preferable for determining impoundment emissions, but to date Department staff has not seen any flowback water analyses that tested for all of the chemicals and compounds that could be present. Flowback water analyses used for this purpose would have to be based on the exact same fracturing additive mix as proposed for all well pads that would use the impoundment, and the Department would have to approve the sampling protocol to ensure that the analysis is representative of the fluid that would be held in the impoundment.

For well permit applications that do not propose use of open surface impoundments, the Department proposes to require identification of additive products and proposed percent by weight of water, proppants and each additive. This will allow the Department to determine whether the proposed fracturing fluid is water-based and generally similar to the fluid represented by Figure 5.3. This Supplement has not identified any potential impact other than impoundment emissions that requires full compositional disclosure to the Department for such water-based solutions.

8.2.2 Other DEC Permits and Approvals

The Division of Environmental Permits (DEP) manages most other permitting programs in the Department and is therefore shown in Table 8.1 as having primary responsibility for wetlands

permitting, review of new in-state industrial treatment plants, and injection well disposal. The Department's technical experts on wetlands permitting reside in DFWMR. Technical review of SPDES permits, including for industrial treatment plants, POTW's and injection wells is typically conducted by DOW. Other programs where DOW bears primary responsibility include stormwater permitting, dam safety permitting for freshwater impoundments, and review of headworks analysis to determine acceptability of a POTW's receiving flowback water. Waste haulers who transport wellsite fluids come under the purview of DSHM's Part 364 program, and must obtain a Beneficial Use Determination for road-spreading. DFWMR will review new proposed surface withdrawals to assist DMN in its determination of whether a site-specific SEQRA determination is required. DAR will have a primary permitting role if emissions at centralized flowback water surface impoundments or well pads trigger regulatory thresholds.

8.3 Well Permit Issuance

8.3.1 Use and Summary of Supplementary Permit Conditions for High-Volume Hydraulic Fracturing

A generic environmental impact statement addresses common impacts and identified common mitigation measures. The proposed Supplementary Permit Conditions for High-Volume Hydraulic Fracturing capture the mitigation measures identified as necessary by this review (see Appendix 10). These proposed conditions address all aspects of well pad activities, including:

- Planning and local coordination;
- Site preparation;
- Site maintenance;
- Drilling, stimulation (i.e., hydraulic fracturing) and flowback operations;
- Reclamation; and
- Other general aspects of the activity.

8.3.2 *High-Volume Re-Fracturing*

Because of the potential associated disturbance and impacts, the Department has determined that high-volume re-fracturing will require submission of the EAF Addendum and the Department's approval after:

- review of the planned fracturing procedures and products, water source, proposed site disturbance and layout, and fluid disposal plans;
- a site inspection by Department staff; and
- a determination of whether any other Department permits are required. If stormwater permit coverage has been terminated, then it must be re-attained prior to any site disturbance associated with high-volume re-fracturing.

Table 8.1
Regulatory Jurisdictions Associated With High-Volume Hydraulic Fracturing

Regulated Activity or Impact	DEC Divisions & Offices						NYS Agencies				Federal Agencies			Local Agencies		Other	
	DMN	DEP	DOW	DSHM	DFWMR	DAR	DOH	DOT	PSC	OPRHP	EPA	USDOT	Corps	Local Health	Local Govt.	NYC DEP	RBCs
General																	
Well siting	P	-	-	-	-	-	-	-	-	*	-	-	-	-	-	*	*
Road use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-
Surface water withdrawals	S	*	*	-	P	-	-	-	-	-	-	-	-	-	-	-	*
Centralized freshwater surface impoundment	-	-	P	-	-	-	-	-	-	*	-	-	-	-	-	-	-
Stormwater runoff	S	-	P	-	-	-	-	-	-	-	-	-	-	-	-	*	*
Wetlands permitting	-	P	-	-	S	-	-	-	-	-	-	-	P	-	-	*	*
Floodplain permitting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	*	*
Transportation of fracturing chemicals	-	-	-	-	-	-	-	P	-	-	-	P	-	-	-	-	-
Well drilling and construction	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*
Wellsite fluid containment	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydraulic fracturing/refracturing	P	-	*	-	-	-	*	-	-	-	-	-	-	-	-	-	-
Cuttings and reserve pit liner disposal	P	-	-	A	-	-	*	-	-	-	-	-	-	-	-	-	-
Site restoration	P	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-
Production operations	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gathering lines and compressor stations	S	S	-	-	-	S	-	-	P	-	-	-	-	-	-	-	-
Air emissions from operations all site operations	S	-	-	-	-	P*/A*	*	-	-	-	-	-	-	-	-	-	-
Well plugging	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Invasive species control	S	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-
Fluid Disposal Plan 6NYCRR 554.1(c)(1)																	
Waste transport	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-
Centralized flowback water surface impoundment	P	-	A	A	A	P*/A*	*	-	-	*	-	-	-	-	-	-	*
POTW disposal	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	*	*
New in-state industrial treatment plants	-	P	S	-	-	-	-	-	-	*	-	-	-	-	-	*	*
Injection well disposal	S	P	S	-	-	-	-	-	-	-	P	-	-	-	-	-	*
Road spreading	-	-	-	P	-	-	*	-	-	-	-	-	-	-	P	-	-
Private Water Wells																	
Baseline testing and ongoing monitoring	P	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-
Initial complaint response	S	-	-	-	-	-	*	-	-	-	-	-	-	P	-	-	-
Complaint follow-up	P	-	-	-	-	-	-	-	-	-	-	-	-	S	-	-	-

Key:
P = Primary role
S = Secondary role
A=Advisory role
* = Role pertains in certain circumstances

DEC Divisions
DMN= Division of Mineral Resources
DEP = Division of Environmental Permits (DRA in GEIS Table 15.1)
DOW = Division of Water (DW in GEIS Table 15.1)
DSHM=Division of Solid and Hazardous Materials (DSHW in GEIS Table 15.1)
DFWMR=Division of Fish, Wildlife and Marine Resources
DAR=Division of Air Resources